

Complying with Both the State and Federal Requirements

A GDF owner needs to review the state and federal requirements separately and comply with all of the requirements that apply. They may be subject to more than one agency's requirements. For example, if a GDF is located in Wayne County and its monthly throughput of gasoline is 90,000 gallons, it is not subject to the vapor balance requirement under the federal rule but could still be subject to the state vapor balance rules if its annual throughput of gasoline is 120,000 gallons or more. Table 1 contains a snapshot of the different requirements found under each rule.


Tanker Truck Driver / Distributor Responsibilities

Drivers must use vapor balance equipment at all GDFs subject to the state rules and/or the federal standard. Pressure/vacuum tests must be conducted annually on tanker trucks. Trucks operating in Marquette County or the lower half of the Lower Peninsula of Michigan must conduct annual pressure/vacuum tests and submit the results to the DNRE, Air Quality Division. The Division will review the results and provide certification. All trucks operating outside this region, delivering gasoline to GDFs with a monthly throughput of 100,000 gallons or more must also conduct annual pressure/vacuum tests on the tankers and keep the results on the truck.

For More Information

Please refer to the publication entitled, “Michigan Gasoline Station Owners & Tanker Truck Drivers: What You Should Know About Vapor Balance Systems, 2nd Edition” located on the DNRE Environmental Assistance Program’s Web site at www.michigan.gov/deqair. Select “Clean Air Assistance” and then “Gasoline Dispensing Facilities” under “Federal Regulations.” Additional questions can be directed to the DNRE’s Environmental Assistance Program at 800-662-9278.

The Web site contains links to the above publication; the initial notification and notification of compliance form and instructions; the notification of performance testing form; acceptable testing methods; state rules; and the federal standard.



Printed on
Recycled Paper

AUTHORITY: PA 451 OF 1994
TOTAL COPIES:
TOTAL COST: \$
COST PER COPY: \$.

The Michigan Department of Natural Resources and Environment (MDNRE) will not discriminate against any individual or group on the basis of race, sex, religion, age, national origin, color, marital status, disability, or political beliefs. Questions or concerns should be directed to the Office of Human Resources, PO Box 30473, Lansing, MI 48909.

Federal and State Vapor Balance Requirements
for Gasoline Dispensing Facilities

Up to 15 gallons of gasoline vapors can be lost when a gasoline storage tank is filled. These vapors lead to the formation of ground level ozone, which triggers a variety of respiratory health problems. To lessen the public health impacts, the Michigan Departments of Agriculture (MDA) and Natural Resources and Environment (DNRE) require vapor balance systems at gasoline stations in certain counties and metropolitan areas and submerged filling at gasoline stations statewide. On January 10, 2008, the U.S. Environmental Protection Agency (U.S. EPA) enacted stringent requirements to minimize the release of gasoline vapors during the filling of storage tanks at gasoline dispensing facilities (GDFs). A GDF is a facility that dispenses gasoline into a fuel tank of a motor vehicle. This includes all retail gasoline stations and many fleet vehicle refueling centers.

Vapor balance equipment minimizes the release of gasoline vapors when underground storage tanks are filled at GDFs through a combination of pipes and hoses that collect displaced gasoline vapors from the tank and route them back in the tanker truck. The terminal recovers the gasoline when the tanker truck returns to reload. The storage tank submerged fill pipes must be no more than six inches from the bottom of the tank to reduce vapor generation from splashing when the tank is filled.

State Requirements

All Michigan GDFs must have submerged fill pipes installed in their storage tanks. Vapor balance is required if one of the following three criteria is met:

- 1. Gasoline storage tanks at GDFs with an annual throughput of 120,000 gallons of gasoline or more located in the counties of Livingston, Macomb, Monroe, Oakland, St. Clair, Washtenaw, and Wayne.
- 2. Gasoline storage tanks placed into operation before 7/1/79 at GDFs with an annual gasoline throughput of 250,000 gallons or more located in the metropolitan areas of Flint, Lansing, or Grand Rapids.
- 3. Gasoline storage tanks placed into operation on or after 7/1/79 at GDFs located in the metropolitan areas of Flint, Lansing, or Grand Rapids.

Federal Requirements

All GDFs, regardless of throughput are subject to management practices. GDFs with a monthly gasoline throughput of 10,000 gallons or more are required to comply with the management and submerged filling requirements. All GDFs with a monthly throughput of 100,000 gallons or more must comply with the management and submerged filling requirements and use vapor balance systems when filling storage tanks. Tests to determine the cracking pressure and leak rate of the pressure/vacuum vent valves and the static pressure of the gasoline storage tanks must be conducted initially and every three years thereafter. These GDFs are also subject to federal notification, recordkeeping, and reporting requirements. GDFs subject to and complying with a DNRE and/or MDA vapor balance requirement before January 10, 2008, do not have to conduct the above testing.

Table 1 – Summary of State and Federal Gasoline Vapor Balance Requirements

	Applicability	Management Practices	Submerged Fill	Vapor Balance	Testing and Monitoring	Notifications	Recordkeeping and Reporting	Compliance Date for Vapor Balance
DNRE	GDFs in the metropolitan areas of Detroit, Flint, Lansing, and Grand Rapids.	Not Applicable	GDF gasoline storage tanks must be equipped with submerged fill pipes located within six inches from the bottom of the storage tank.	<p>Tanks > 2,000 gallon capacity installed before 7/1/1979 at a GDF with a throughput \geq 250,000 gallons annually.</p> <p><i>or</i></p> <p>Tanks > 2,000 gallon capacity installed on or after 7/1/1979.</p>	Not Applicable	Not Applicable	Not Applicable	<p>December 31, 1982, for tanks placed into operation before 7/1/79.</p> <p>Upon Installation for tanks placed into operation on or after 7/1/79.</p>
MDA	GDFs in the counties of Livingston, Macomb, Monroe, Oakland, St. Clair, Washtenaw, and Wayne.	Not Applicable	Not Applicable	GDFs with a throughput \geq 120,000 gallons annually.	Not Applicable	Not Applicable	Not Applicable	3/29/85
U.S. EPA	All GDFs nationwide.	All GDFs nationwide.	GDFs with a monthly throughput \geq 10,000 gallons.	GDFs with a monthly throughput \geq 100,000 gallons.	<p>GDFs with a monthly throughput \geq 100,000 gallons must conduct cracking pressure and leak rate tests on the pressure/vacuum vent valves and static pressure tests on the storage tanks.</p> <p>If the GDF was complying with a MDA or DNRE vapor balance rule prior to 1/10/2008, then the above testing is not required.</p>	GDFs with a monthly throughput \geq 10,000 gallons have notification requirements.	<p>GDFs with a monthly throughput < 100,000 gallons must keep records of their throughput.</p> <p>GDFs with a monthly throughput \geq 100,000 gallons have reporting requirements.</p>	<p>Existing GDFs (started construction before 11/9/06) must comply by January 10, 2011.</p> <p>New GDFs (started construction on or after 11/9/06) must comply by 1/10/2008 or upon startup (whichever is later).</p>

This document was developed in March 2010 by the Environmental Assistance Program in conjunction with the Air Quality Division. It is intended for guidance and compliance assistance purposes only and may be impacted by changes in legislation, rules, and regulations adopted after the date of publication.